Kentucky Ag News Headlines

Eastern Tent Caterpillars Now Wandering, Populations Up Sharply

Kentucky Ag Connection - 05/13/2008

Experts report that eastern tent caterpillars are now wandering and population levels are among the highest they've seen since the 2001, when Mare Reproductive Loss Syndrome (MRLS) hit Central Kentucky particularly hard.

"The eastern tent caterpillar populations are dramatically up this year -- the highest I've seen since the MRLS crisis. The larvae are full size, many trees are totally defoliated and I've seen very large numbers of caterpillars moving along fence rails and wandering out many meters into pastures adjacent to the cherry trees we are using to conduct eastern tent caterpillar trials," said Dan Potter, University of Kentucky College of Agriculture professor of entomology.

"Maturation and wandering of eastern tent caterpillars is occurring a bit late this year due to the cooler spring," he said.

UK entomologists recommend that unless horse farm managers have been aggressive in managing eastern tent caterpillars, or removing host trees, they should keep pregnant mares out of pastures bordered by cherry trees or other hosts for the next several weeks.

Neil Williams, UK Livestock Disease Diagnostic Center associate director and pathology section chief, said the LDDC hasn't seen any cases of MRLS this year but will continue to be vigilant.

UK research has strongly linked the caterpillars with outbreaks of MRLS, which can cause late-term foal losses, early-term fetal losses and weak foals. During the 2001 outbreak, an estimated 30 percent of the 2001-2002 Thoroughbred foal crop was lost and the state suffered an economic cost of approximately $336 million due to losses suffered in all breeds of horses.

Epidemiological and field studies conducted by UK researchers demonstrated that MRLS was associated with unprecedented populations of eastern tent caterpillars on horse farms in Kentucky. Studies since the 2001-2002 outbreak have subsequently revealed that horses will inadvertently eat the caterpillars and that the caterpillar hairs embed into the lining of the alimentary tract. Once that protective barrier is breached, normal alimentary tract bacteria may gain access to and reproduce in sites with reduced immunity, such as the fetus and placenta. Fetal death from these alimentary tract bacteria is the hallmark of MRLS.

According to Potter and research literature about eastern tent caterpillars, the caterpillars exhibit "irruptive population dynamics," meaning populations undergo outbreak or short-term explosive growth followed by a marked decline for several years. It is said

that caterpillars in the United States typically have approximately 10-year population cycles between those extremes, but data shows that the caterpillars exhibit considerable variability in the interval between outbreaks.

UK experts concur that eastern tent caterpillar populations seem to be on the increase the past few years and recommend that horse farm managers be on the lookout this year and into 2009.